CLAIMS

1. A security device comprising at least first and second superposed optically variable effect generating structures, each having a surface relief microstructure, the second optically variable effect generating structure being viewable through the first.

2. A device according to claim 1, wherein the first optically variable effect generating structure includes a discontinuous metallic layer.

3. A device according to claim 1, wherein the first optical variable effect generating structure includes a reflective layer formed by a high refractive index dielectric material.

4. A security device according to claim 3, wherein the first optically variable effect generating structure comprises a substantially pure grating structure in combination with a high refractive index dielectric layer and the second optically variable effect generating structure comprises one of a classical hologram, a zero-order diffractive device, or a Fresnel structure.

5. A device according to any of the preceding claims, wherein the first and second optically variable effect generating structures comprise complementary zero-order diffractive devices.

6. A device according to any of the preceding claims, wherein the first and second optically variable effect generating structures generate orthogonal holographic images, typically originated by classical holography.

7. A device according to any of the preceding claims, wherein the second optically variable effect generating structure includes an opaque, reflective layer.

8. A device according to any of the preceding claims, wherein the first and second optically variable effect generating structures are laminated together.

9. A device according to any of the preceding claims, wherein the first and second surface relief microstructures have been originated by different processes.

10. A device according to any of the preceding claims, wherein the first and second surface relief microstructures have been originated by one of dot matrix interferometry, lithographic interferometry, e-beam lithography and classical rainbow lithography.

11. A device according to any of the preceding claims, further comprising a carrier layer supporting the first and second optically variable effect generating structures.

12. A device according to claim 11, wherein the carrier layer is secured to the first and second optically variable effect generating structures via a release layer.

13. A device according to any of the preceding claims, wherein one or more of the optically variable effect generating structures is formed in a respective lacquer layer.

14. A device according to any of the preceding claims, wherein at least one of the optically variable effect generating structures is formed in a polymer material.

15. A device according to any of the preceding claims, further comprising an adhesive layer to enable the device to be secured to a substrate.

16. A device according to any of the preceding claims, further comprising a dye or pigment providing in or between layer(s) of the optically variable effect generating structures.

17. A device according to any of the preceding claims, further comprising one or more additional optically variable effect generating structures provided between the first and second optically variable effect generating structures.

18. A method of manufacturing a security device, the method comprising providing at least first and second superposed optically variable effect generating structures, each having a surface relief microstructure, whereby the

second optically variable effect generating structure is viewable through the first.

19. A method according to claim 18, wherein each optically variable effect generating structure is formed by embossing a corresponding surface relief microstructure into an embossing layer.

20. A method according to claim 19, wherein the embossing layer comprises an embossing lacquer or polymer.

21. A method according to any of claims 18 to 20, wherein each microstructure is derived from a different origination process.

22. A method according to claim 21, wherein the origination processes are chosen from dot matrix interferometry, lithographic interferometry, e-beam lithography and classical rainbow lithography.

23. A method according to any of claims 18 to 22, further comprising providing the surface relief microstructure of the first optically variable effect generating structure with a partially reflective layer.

24. A method according to claim 23, wherein the partially reflective layer is formed by a high refractive index dielectric material or a discontinuous metallization.

25. A method according to any of claims 18 to 24, wherein the first and second optically variable effect generating structures are fabricated separately and then joined together.

26. A method according to claim 25, wherein the first and second optically variable effect generating structures are laminated together with an intermediate laminating adhesive.

27. A method according to claim 26, wherein the laminating adhesive is UV curable, the securing step including irradiating the laminating adhesive through the first optically variable effect generating structure to activate the adhesive.

28. A method according to any of claims 18 to 27, wherein the first and second optically variable effect generating structures are provided on a carrier.

29. A method according to claim 27, wherein a release layer is provided between the carrier and the first and second optically variable effect generating structures.

30. A document of value carrying a security device according to any of claims 1 to 17 or manufactured according to any of claims 18 to 29.

31. A document according to claim 30, the document comprising a document of value such as a banknote.